UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,429	04/25/2001	Anita B. Marsh	06269-030001	8544

26211 7590 02/07/2007
FISH & RICHARDSON P.C.
P.O. BOX 1022
MINNEAPOLIS, MN 55440-1022

EXAMINER	
VU, TUAN A	
ART UNIT	**PAPER NUMBER**
2193	

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/07/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary	Application No.	Applicant(s)	
	09/843,429	MARSH ET AL.	
	Examiner	Art Unit	
	Tuan A. Vu	2193	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 January 2007*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1,2,4-16,18-24 and 26-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-2, 4-16, 18-24, 26-35* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

1. This action is responsive to the Applicant's response filed 1/19/2007

As indicated in Applicant's response, claims 1, 15, 23, 34-35 have been amended; and claims 17, 25 have been canceled. Claims 1-2, 4-16, 18-24, 26-35 are pending in the office action.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. Claim 35 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, claim 35 recites first, second, and third processors (top 7 lines of claim); that is, a first processor comprising a plurality of gateways in a network, a second processor comprising a call controller; and a third processor comprising a management system associated with the call controller; and there is not sufficient disclosure description for this. From the Specifications, there are gateways controlled by a module called a softswitch, and a management system (which can entail a distinct machine – system 46, Fig. 3) separate from the softswitch (which is basically a software entity); but it is unclear as to whether each gateway is a processor as claimed; nor is it factual that the module containing a softswitch as shown in Figure 3 is actually a processor on its own (emphasis added), one which is distinct from any one the plurality of

gateway type of processors -- if any -- and from the management system machine. The term processor or computer is not sufficiently used in the Specifications in a context that explicitly puts forth that the network is implemented with 3 types of processors as required by the claim language. One skill in the art would not be able to construe the network as claimed as actually having the 3 distinct data processors as recited, unless this *data processor* is but mere software entity, which is not clear from the Specifications and possibly, would lead to a non-statutory subject matter. As a whole, the 3 data processor limitation is not sufficiently taught in the Disclosure; and the Applicant is deemed not in possession of such teaching by the time the invention was made. For the prosecution, the first, second and third processor limitation will be treated as though one processor is for the management module, and a second processor is for the gateway software under the control of the management machine.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 1-2, 4-16, 18-24, 26-35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reifer et al., USPN: 6, 421,727 (hereinafter Reifer), and further in view of Bloch et al., USPubN: 2002/0188713 (hereinafter Bloch).

As per claim 1, Reifer discloses method comprising:

downloading a call service component to a call controller in response to a network carrier turning on a new service (e.g. col. 3 li. 54-67; Fig. 6 – Note: message or event/call records reads

on downloading a component to a gateway from a PSTN server – see Fig. 2-3, Fig 4) that corresponds to the call service component, for a particular user area (LAN – Fig. 1-2; LAC's - col. 3 li 52 to col. 4 li. 17) comprising a plurality of users, wherein a call service component is downloaded when a new service is turned on (e.g. *activation* – col. 5, li. 38-50; activate – Fig. 11);

using the call service component to support telecommunication traffic to or from a gateway under control of the call controller (e.g. Fig. 6-7; Fig 11-12; col. 8, lines 26-40); and removing the call service component from the call controller when the network carrier shuts off (e.g. deactivate - Fig 10, 11) the new service corresponding to the call service component for the particular user area in the network..

But Reifer does not explicitly disclose that the service component download is not on a per-call basis. Reifer discloses an update activity for the gateway or files needed for the GBS to perform its administrator updates (e.g. *for a given Gateway* - col. 21, li. 30-60) to effectuate non-call basis activities, all of which suggestive of administrative update using database connectivity analogous to non-request off-line basis. The upgrade as maintenance during off-line period for server software is taught by the softswitch architecture by Bloch (e.g. *gateway* - para 0009, pg. 1; para 0114, pg. 8) for call processing analogous to call request service by Reifer's gateway. In view of the maintenance concept behind database related requirements set by the administration modules by Reifer (Administration module - col. 12-19), it would have been obvious for one skill in the art at the time the invention was made to provide a maintenance of gateway software so that non-time critical upgrade or replacement software be downloaded as update files to reconfigure the gateway software and this is endeavored by both Reifer's update (

see col. 21, li. 30-60) and Bloch's maintenance (see para 0011, pg. 2) such that needed changes to the controller would be transparent to the user without risk of disrupting the network service (see para 0114, pg. 8).

As per claim 2, Reifer discloses including dynamically downloading the call service component (see col. 8, lines 26-40).

As per claim 4, Reifer discloses a half-call model that views a call either as an originating or a terminating segment of the call (e.g. deactivate - Fig 10, 1 – Note: every call request or service is composed of half-call to activate or deactivate with respect to originator and destinator – see *portion of a call* – col. 7, line 12-14).

As per claim 5, Reifer discloses downloading the call service component from a central repository (e.g. *from SPNet database ... changes to the IRIDIUM network* – col. 21, li. 30-50).

As per claim 6, Reifer discloses wherein each segment of the call handles service and access protocols according to a previously downloaded call service component with which the segment is associated (e.g. RTX records – Fig. 7; Customer contract …Contract Search – Fig. 10-11; Matching 620 – Fig .6).

As per claim 7, Reifer discloses wherein each call service component comprises a wrapper surrounding a set of core functions (e.g. col. 3 li. 54-67; *message services* – col. 4, lines 5-17 -), wherein the wrapper supports dynamic downloading of the component (re claim 1 - Note: a service to parse a message reads on a wrapper, a message being an inter-application interface including core functions encapsulated within that are to be parsed) to the call controller.

As per claim 8, Reifer discloses wherein downloading the call service occurs while the call controller is operational and supporting live traffic, the call service being downloaded without disrupting the live traffic (re claim 1).

As per claim 9, Reifer discloses wherein the call service component comprises an application component for implementing call behavior (e.g. col. 7, li. 49 to col. 8, li. 40; col. 9, line 40 to col. 10, line 37).

As per claim 10, Reifer discloses wherein the call service component comprises a resource component for providing access to telephony resources (col. 7, li. 49 to col. 8, li. 40; col. 9, line 40 to col. 10, line 37) by an application component that implements call behavior (e.g. Fig. 11-14).

As per claims 11-12, Reifer discloses establishing a call having an originating segment and an terminating segment (re claim 4: col. 7, line 12-14); but does not explicitly disclose that the originating segment uses the call service component downloaded to the call controller; and wherein the call service component downloaded to the call controller represents a first call type, and wherein the call has a terminating segment that represents a different call type. But based on the download of application code to support client interaction with SPNet (see col. 9, li. 15 to col. 10, li. 67; Activate, Suspend, Deactivate – Fig. 11) it would have been obvious for one skill in the art to utilize the above downloaded code to support Reifer's above implied teaching via a Gateway for addressing an originating segment and an termination segment to support the client's endeavor about the activation/deactivation process as established by the SPNet service in light of the client interactive process based thereon (see Fig. 10-12).

As per claim 13, Reifer discloses establishing a call (to a database) having a terminating segment that uses the call service component downloaded to the call controller, in light of the rationale as to update or provide replacement code to the gateway controller software from claim 1.

As per claim 14, Reifer discloses wherein the call service component downloaded to the call controller represents a first call type, and wherein the call has an originating segment that represents a different call type (see Fig. 1-2 – Note: varying with the area of the wireless coverage of a transponder or satellite, the type of call therein reads on different type).

As per claim 15, Reifer discloses a telecommunication system comprising:

a data store comprising a repository of call service components (e.g. provider … download col. 9, lines 7-28);

a first data processor comprising a call controller; and a second data processor comprising a gateway under control of the call controller (e.g. BSS, GBS – Fig. 4);

wherein the call controller is configured for downloading a call service component from the repository in response to a network carrier turning on a new service that corresponds to the call service component (e.g. download - col. 9, li. 1-27; – Fig. 9), for a particular user area in the network, wherein the particular user area comprises a plurality of users, wherein a call service component is downloaded when a new service is turned on (e.g. *activation* – col. 5, li. 38-50; activate - Fig .11);

using the call service component to support telecommunication traffic to or from the gateway (e.g. *activation* – col. 5, li. 38-50; Fig .11; col. 9, li. 15 to col. 10, li. 67; *Activate, Suspend, Deactivate* – Fig. 11); and removing the call service component from the call controller

when the network carrier shuts off the new service corresponding to the call service component (e.g. *deactivate* - Fig 10, 1 – Note: every call request or service is composed of half-call to activate or deactivate with respect to originator and destinator – see *portion of a call* – col. 7, line 12-14) for the particular user area in the network (LAN – Fig. 1-2; LAC's -col. 3 li 52 to col. 4 li. 17).

But Reifer does not explicitly disclose that the service component download is not on a per-call basis; however this limitation has been addressed as set forth in claim 1 using Bloch and Reifer combination.

As per claims 16, 18-21, and 22, refer to corresponding rejection set forth in claims 2, 4, 6-8, and 9-10, respectively.

As per claim 23, Reifer discloses an article comprising a computer-readable medium storing computer-readable instructions for causing a computer system to:

download a particular call service component from a repository of call service components in response to a network carrier turning on a new service that corresponds to the particular call service component for a particular user area comprising a plurality of users wherein a call service component is downloaded when a new service is turned on;

use the particular call service component to support telecommunication traffic to or from a gateway under control of a call controller; and

remove the call service component from the call controller when the network carrier shuts off the new service corresponding to the call service component for the particular user area in the network;

all of which limitations having been addressed in claim 1; however, Reifer does not explicitly disclose that the service component download is not on a per-call basis; but this limitation has been addressed as set forth in claim 1 using Bloch and Reifer combination.

As per claims 24, 26-31 and 32-33, refer to corresponding rejection set forth in claims 2, 4, 6-10, 13 and 12, respectively

As per claim 34, Reifer discloses a method comprising

dynamically downloading a call service component to a call controller when a network carrier turns on a new service corresponding to the call service component, for a particular user area that comprises a plurality of users (refer to claim 1 for corresponding rejection), wherein a call service component is only downloaded when a new service is turned on (re claim 1);

using the call service component to support telecommunication traffic to or from a gateway under control of the call controller; and removing the call service component from the call controller when the network carrier shuts off the new service corresponding to the call service component for the particular user area in the network (re claim 1), wherein the call service component comprises a wrapper surrounding a set of core functions, wherein the wrapper supports the dynamic downloading of the call service component to the call controller (re claim 7).

But Reifer does not explicitly disclose that the service component download is not on a per-call basis; however this limitation has been addressed as set forth in claim 1 using Bloch and Reifer combination.

As per claim 35, Reifer discloses a system comprising:

a network carrier; a first data processor comprising a plurality of media gateways associated with the network carrier (Fig. 1-3); a second data processor comprising a call controller adapted to control a first one of the media gateways (BSS, GBS – Fig. 4);

a third data processor comprising a management system associated with the call controller, wherein the management system is adapted to:

direct dynamic downloading of a service component (col. 5, lines 4-12 – Note: multi services handled by a BSS reads on a third processor – see Fig. 1-2) to the call controller through when the network carrier turns on a new service (*activation* – col. 5, li. 38-50; activate – Fig. 11) for the plurality of media gateways (*gateways 110*, col. 4, lines 63-64), wherein a call service component is downloaded when a new service is turned on (re claim 1);

wherein the service component comprises a set of core functions surrounded by a wrapper, the set of core functions provides functionality associated with the service component, and the wrapper supports the dynamic downloading (re claim 7) and control configuration of the first media gateway and the call controller (Fig. 4; Fig. 11-14);

wherein the call controller is adapted to use service component to support telecommunication traffic to or from the first media gateway (re claim 1), and

wherein the management system is adapted to remove the service component when the network carrier shuts off the new service corresponding to the call service component for the plurality of media gateways (re claim 1).

Reifer does not disclose dynamic downloading through Java Dynamic Management Kit framework; but in view of the interactive application where the downloaded Java component is used to manipulate application definition, Javascript editing, form filling based user's interaction

and browser-based (or GUI-tool) modification for the call service (see col. 9, line 7 to col. 10, line 67; Fig. 11-14), the Java framework is disclosed.

Nor does Reifer explicitly disclose that the service component download is not on a per-call basis; however this limitation has been addressed as set forth in claim 1 using Bloch and Reifer combination.

Response to Arguments

6. Applicant's arguments with respect to claims 1-2, 4-35 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

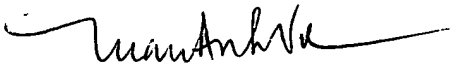
7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan A Vu whose telephone number is (272) 272-3735. The examiner can normally be reached on 8AM-4:30PM/Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Meng-Ai An can be reached on (571)272-3756.

The fax phone number for the organization where this application or proceeding is assigned is (571) 273-3735 (for non-official correspondence - please consult Examiner before using) or 571-273-8300 (for official correspondence) or redirected to customer service at 571-272-3609.

Any inquiry of a general nature or relating to the status of this application should be directed to the TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tuan A Vu
Patent Examiner,
Art Unit 2193
February 4, 2007